DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES Office of Structural Materials

Quality Assurance and Source Inspection

Bay Area Branch 690 Walnut Ave.St. 150 Vallejo, CA 94592-1133 (707) 649-5453 (707) 649-5493



Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 69.28

WELDING INSPECTION REPORT

Resident Engineer: Siegenthaler, Peter **Report No:** WIR-021599 Address: 333 Burma Road **Date Inspected:** 28-Feb-2011

City: Oakland, CA 94607

Project Name: SAS Superstructure **OSM Arrival Time:** 700 **OSM Departure Time:** 1900 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

CWI Name: CWI Present: Yes Mr. Xu Le Feng. No **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A N/A **Electrode to specification:** Yes No Weld Procedures Followed: Yes No N/A N/A **Qualified Welders:** Yes No **Verified Joint Fit-up:** Yes No N/A N/A N/A **Approved Drawings:** Yes No **Approved WPS:** Yes No Yes No N/A **Delayed / Cancelled:**

Bridge No: 34-0006 **Component:** Tower and Orthotropic Box Girder (OBG)

Summary of Items Observed:

On this day CALTRANS OSM Quality Assurance (QA) Inspector Shailesh Gaikwad was present during the times noted above for observations relative to the fabrication of the SAS Superstructure being performed by Zhenhua Port Machinery Company (ZPMC) at Changxing Island in Shanghai, China. QA observed and/or found the following:

BAY 10

This QA Inspector performed randomly Visual Inspection and Magnetic Particle Testing (MT) of approximately 15% of the area previously tested and accepted by ZPMC Quality Control personnel. This QA Inspector generated a TL- 6028 (MT) report for this date. The member is identified as OBG Bike Path. The weld designations reviewed are as follows.

BK017-001-001

NDT Notification No-08416

This QA Inspector performed randomly Visual Inspection and Ultrasonic Testing (UT) of approximately 10% of the area previously tested and accepted by ZPMC Quality Control personnel. This QA Inspector generated a TL-6027 (UT) report for this date. The member is identified as OBG Bike path. The weld designations reviewed are as follows.

BK017-001-001

NDT Notification No-08416

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This QA Inspector observed the following work in progress:

BAY 10:

SMAW Process:

This QA Inspector observed ZPMC qualified welding personnel identified as 052930, 0500363, 044511, Perform Shielded Metal Arc Welding (SMAW) on OBG Traveler Rail. Joint identified as 20TR2-039-009, 013, 015. ZPMC QC Identified as Jiang Xian Bo. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-P-2212-Tc-U5b.

This QA Inspector observed ZPMC qualified welding personnel identified as 057258, 052493, Perform Shielded Metal Arc Welding (SMAW) on OBG Traveler Rail. Joint identified as 20TR2-030-011. ZPMC QC Identified as Jiang Xian Bo. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-P-2212-Tc-U5b.

This QA Inspector observed ZPMC qualified welding personnel identified as 040365, 040581 Perform Shielded Metal Arc Welding (SMAW) on OBG Cantilever beam. Joint identified as BK16B-001-002 and BK16-001-014. ZPMC QC Identified as Yun Chang Fang. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-P-2213-Tc-U4c. For more information see attached picture number 1.

SMAW Process:

This QA Inspector observed ZPMC qualified welding personnel identified as 057220 Perform Shielded Metal Arc Welding (SMAW) on OBG Bike Cantilever Beam. Joint identified as BK15A-001-030. ZPMC QC Identified as Yun Chang Fang. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-P-2112-Tc-U5b.

FCAW Process:

This QA Inspector observed ZPMC qualified welding personnel identified as 053869 Perform Flux Core Arc Welding (FCAW) on OBG Bike path. Joint identified as BK009A5-001-029 and BK009A3-001-059. ZPMC QC Identified as Li Peng Fei. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-T-2232-ESAB.

This QA Inspector observed ZPMC qualified welding personnel identified as 053869, 040302 Perform Flux Core Arc Welding (FCAW) on OBG Bike path. Joint identified as BK010A4-001-040, 041. ZPMC QC Identified as Li Peng Fei. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-T-2132-ESAB. For more information see attached picture number 2.

This QA Inspector observed ZPMC qualified welding personnel identified as 053869, 040533 Perform Flux Core Arc Welding (FCAW) on OBG Bike path. Joint identified as BK010A4-001-066, 067. ZPMC QC Identified as Li Peng Fei. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-T-2132-ESAB.

Tower Lift 6: FCAW Process,

This QA Inspector observed ZPMC qualified welding personnel identified as 052075, 040302 Perform Flux Core

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Arc Welding (FCAW) on Tower Lift 6. Joint identified as SSD1-TL6-1B-D-3, 4, 9, 10, 13, 20, 19, 26. ZPMC QC Identified as Li Peng Fei. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-T-2132-ESAB.

BAY 11,

FCAW Process:

This QA Inspector observed ZPMC qualified welding personnel identified as 053316, Perform Flux Core Arc Welding (FCAW) on OBG Bike Pathl. Joint identified as BK005A7-003-236. ZPMC QC Identified as Shao Hai Lang. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-T-2231-ESAB.

SMAW Process:

This QA Inspector observed ZPMC qualified welding personnel identified as 044541 Perform Shielded Metal Arc Welding (SMAW) on OBG Traveler Rail. Joint identified as 20TR2-035-009. ZPMC QC Identified as Wang Chang Xin. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-P-2211-Tc-U5b.

Unless otherwise noted, all work observed on this date appeared to be in general compliance with the applicable contract documents.





Summary of Conversations:

Only general conversation was held between QA and QC concerning this project.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Thomas Ho: 150002048250, who represents the Office of Structural Materials for your project.

Gaikwad, Shailesh **Inspected By:** Quality Assurance Inspector

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Reviewed By: Clifford,William QA Reviewer